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(54) Title: PURIFICATION METHODS FOR OLIGONUCLEOTIDES AND THEIR ANALOGS

(57) Abstract: The present invention discloses methods for separating oligonucleotides from impurities. In the methods of the invention, a target oligonucleotide, in a mixture comprising the target oligonucleotide and an impurity, is separated from the impurity using a titratable anion exchange composition. The target oligonucleotide is bound to the titratable anion exchange composition and an eluting solution which increases in pH over time is passed through the titratable anion exchange composition with the target oligonucleotide bound thereon. Preferably, the eluting solution does not substantially increase its salt concentration. The target oligonucleotide is eluted and thereby separated from the impurity which either elutes at a lower pH or a higher pH than the target oligonucleotide.

INTERNATIONAL SEARCH REPORT

Internat. Application No

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, BIOSIS, EMBASE, CHEM ABS Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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X	WO 01 38516 A (STADLER JOACHIM ;Q ONE BIOTECH LTD (GB); AMERSHAM PHARM BIOTECH AB) 31 May 2001 (2001-05-31) See especially page 10, line 15 to page 11, line 9. the whole document --- -/--	1-25

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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- *G* document member of the same patent family

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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